ACCESSION NUMBER: DOCUMENT NUMBER:

2000:455053 HCAPLUS

134:114464

TITLE:

AUTHOR (S):

Synthetic peptides that inhibit binding of the collagen type II 261-273 epitope to rheumatoid

arthritis-associated HLA-DR1 and -DR4

molecules and collagen-specific T-cell responses Fridkis-Hareli, M.; Rosloniec, E. F.; Fugger, L.;

Strominger, J. L.

CORPORATE SOURCE:

Department of Clinical Immunology, Aarhus University

Hospital, Aarhus, Den.

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Hum. Immunol. (2000), 61(7), 640-650

CODEN: HUIMDQ; ISSN: 0198-8859

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Journal

LANGUAGE: English Copolymer 1 [Cop 1, poly (Y, E, A, K)] is a random

synthetic amino acid copolymer effective in the treatment of relapsing forms of multiple sclerosis (MS), a disease that is linked to HLA-DR2 (DRB1*1501). Another copolymer [poly (Y, A, K)] was also identified that binds to rheumatoid arthritis (RA)-assocd. HLA-DR1 (DRB1*0101) or HLA-DR4 (DRB1*0401) mols. and inhibits the response of HLA-DR1- and -DR4-restricted T cell clones to an immunodominant epitope of collagen type II (CII) 261-273 (a candidate autoantigen in RA). In the present study various peptides have been synthesized based on binding "motifs" of Cop 1 for HLA-DR1 and -DR4 mols. Those peptides with K at P-1 or K at P8 were particularly effective as inhibitors of binding of CII 261-273, of Cop 1 and of the influenza virus hemagglutinin peptide 306-318 to these class II proteins. Moreover, several of them were also potent inhibitors of the CII 261-273-reactive T cell clones. These findings suggest that small peptides or their more stable derivs. may be able to substitute for copolymers in the treatment

REFERENCE COUNT: REFERENCE(S):

of RA, and by implication of MS.

- (1) Aharoni, R; Eur J Immunol 1993, V23, P17 HCAPLUS
- (2) Andersson, E; Proc Natl Acad Sci USA 1998, V95, P7574 HCAPLUS
- (4) Brand, D; J Immunol 1994, V152, P3088 HCAPLUS
- (5) Brown, J; Nature 1993, V364, P33 HCAPLUS(6) Busch, R; J Immunol 1991, V147, P1292 HCAPLUS

Applicants: Alexander Gad and Dora Lis

Serial No.: 09/816,989 Filed: March 23, 2001

Exhibit 14

ACCESSION NUMBER: DOCUMENT NUMBER:

2000:455053 HCAPLUS

134:114464

TITLE:

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Department of Clinical Immunology, Aarhus University

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LANGUAGE: English

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- (5) Brown, J; Nature 1993, V364, P33 HCAPLUS
- (6) Busch, R; J Immunol 1991, V147, P1292 HCAPLUS

Applicants: Adrian Gilbert et al.

Serial No.: 09/788,131 Filed: February 16, 2001

Exhibit 153

ACCESSION NUMBER: DOCUMENT NUMBER:

2000:455053 HCAPLUS

134:114464

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Exhibit 153